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selectively logging the user onto the computer network based upon a determination of whether the voice response to the challenge meets a matching standard with reference to a stored voice sample sequence, wherein the voice sample sequence corresponds to the user identification and the challenge query.

- 2. (Amended) The method of claim 1 wherein the variable challenge query is selected from a set of potential queries, the variable challenge query determined in a manner such that the user cannot determine, in advance of the issuing step, the challenge query.
- 6. (Amended) The method of claim 3 further comprising the steps of receiving a notification of successful logging onto the computer network and thereafter executing an application in accordance with vocal commands received by the dual-access communications interface.
 - 10. (Cancelled)
 - 11. (Amended) The method of claim 1 wherein the challenge query is a request to repeat a phrase transmitted by the dual-access communications interface.
 - 12. (Amended) The method of claim 11 wherein the phrase transmitted by the dual-access communications interface is generated by a text to speech synthesizer based upon alphanumeric values.
 - 14. (Amended) A system for authenticating a user for access to a computer network, the system comprising:
 - a user authentication database including for each registered user:

an identification, and

a set of vocal samples corresponding to the identification;

a network access server, including a dual-access communications interface supporting both data calls and voice calls over a same physical input, for receiving a user identification from a4

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a user seeking authentication via the dual-access communications interface, issuing a variable challenge query, comparing a received response to the challenge query to a stored voice sample sequence corresponding to the user identification and the challenge query, and issuing a logon request, including a user identification and password, on behalf of an authenticated user determined by the comparison of the received response to the stored voice sample sequence;

a logon server coupled to the network access server and configured to receive the user identification and password from the network access server and in response providing a set of corresponding credentials for use by an application proxy.

15. (Amended) The system of claim 14 wherein the variable challenge query is obtained from a set of potential queries wherein the variable challenge query is determined in a manner such that a user cannot determine, in advance of issuing the challenge query, the challenge query.

16. (Cancelled)

- 18. (Amended) The system of claim 17 wherein the voice applications include a personal interactive voice response application.
- 19. (Amended) The system of claim 17 wherein the voice applications include a distributed conference bridge.
- 21. (Amended) A computer-readable media including computer-executable instructions for performing a set of steps for authenticating a user for access to a computer network via a network access server including a dual-access communications interface supporting both data calls and voice calls over a same physical input, the steps including:

receiving, via the dual-access communications interface, a user identification from a user seeking access to the computer network via the dual-access communications interface;

issuing a variable challenge query;

receiving, via the dual-access communications interface, a voice response to the challenge query; and

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selectively logging the user onto the computer network based upon a determination of whether the voice response to the challenge meets a matching standard with reference to a stored voice sample sequence, wherein the voice sample sequence corresponds to the user identification and the challenge query.